

## TITLE OF THE INVENTION

## ALTERNATIVELY SPLICED ISOFORMS OF HUMAN PHKA2

## ABSTRACT OF THE DISCLOSURE

5                   The present invention features nucleic acids and polypeptides encoding four novel splice variant isoforms of PHKA2. The polynucleotide sequences of *PHKA2sv3*, *PHKA2sv4*, *PHKA2sv6* and *PHKA2sv7* are provided by SEQ ID NO 1, SEQ ID NO 3, SEQ ID NO 5 and SEQ ID NO 6, respectively. The amino acid sequences for PHKA2sv3, PHKA2sv4, and PHKA2sv7 are provided by SEQ ID NO 2, SEQ ID NO 4, and SEQ ID NO 7, respectively. The  
10 present invention also provides methods for using PHKA2sv3, PHKA2sv4, and PHKA2sv7 polynucleotides and proteins to screen for compounds that bind to PHKA2sv3, PHKA2sv4, and PHKA2sv7, respectively.